

IMPROVED FRAMEWORKS FOR INVOKING METHODS IN VIRTUAL MACHINES

CROSS-REFERENCE TO RELATED APPLICATIONS

5 This application is related to U.S. Patent Application No. 09/703,356
(Att.Dkt.No. SUN1P810/P5510), entitled "IMPROVED METHODS AND
APPARATUS FOR NUMERIC CONSTANT VALUE INLINING IN VIRTUAL
MACHINES", filed concurrently herewith, and hereby incorporated herein by
reference.

10 This application is related to U.S. Patent Application No. 09/703,449
(Att.Dkt.No. SUN1P814/P5417), entitled "IMPROVED FRAMEWORKS FOR
LOADING AND EXECUTION OF OBJECT-BASED PROGRAMS", filed
concurrently herewith, and hereby incorporated herein by reference.

BACKGROUND OF THE INVENTION

15 The present invention relates generally to frameworks for invoking methods in
virtual computing machines. More specifically, the invention relates to frameworks
for representing class files that facilitate the method invocation process within a
20 virtual machine and to processes for creating such representations of a class file.

 Recently, the Java™ programming environment has become quite popular.
The Java™ programming language is an object-based high level programming
language that is designed to be portable enough to be executed on a wide range of
computers ranging from small devices (e.g., pagers, cell phones and smart cards) up to
25 supercomputers. Computer programs written in the Java programming language (and
other languages) may be compiled into Java virtual machine instructions (typically
referred to as Java bytecodes) that are suitable for execution by a Java virtual machine
implementation.

 The Java virtual machine is commonly implemented in software by means of
30 an interpreter for the Java virtual machine instruction set, but in general may be
software, hardware, or both. A particular Java virtual machine implementation and
corresponding support libraries, together constitute a Java™ runtime environment.